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R-3875-76

M. Sc. (Sem. II) (Env. Sci.) Examination

May / June – 2010

ENS - 202 : Biotechnology & Environmental Health, Safety

Time : **3** Hours] [Total Marks : **70**

R-3875

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ M. SC. (SEM. 2) (ENV. SCI.)

Name of the Subject :

☛ BIOTECHNOLOGY & ENVIRONMENTAL HEALTH, SAFETY

☛ Subject Code No. : 3 8 7 5 ☛ Section No. (1, 2,.....) : 1

Seat No. :

Student's Signature

(2) Figures to the right indicate full amrks of the question.
(3) Draw neat and labelled diagrams whenever necessary.
(4) Both sections must be written in separate answer books.

1 (a) Why biodiversity is decline in the world? Give the reasons for the loss of biodiversity. **5**

(b) Describe the methods for the conservation of species. **5**

OR

1 (a) Explain in detail about the symbiotic and non-symbiotic bacteria. **5**

(b) Write detail note on phosphate solubilizing microorganism. **5**

2 Give in detail about the degradation of aromatics Hydrocarbon with appropriate examples. **10**

OR

2 Describe the methods for bioleaching. Explain copper recovery from low grade ore. **10**

3 Write short notes on : (any **three**) **15**

(i) Biosurfactant
(ii) Biodeterioration
(iii) Biopesticides
(iv) Biopolymers.

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☛ **BIOTECHNOLOGY & ENVIRONMENTAL HEALTH, SAFETY**

☛ Subject Code No. : **3 8 7 6** ☛ Section No. (1, 2,.....) : **2**

Seat No. :

Student's Signature

(2) Figures to the right indicate full amrks of the question.

(3) Draw neat and labelled diagrams whenever necessary.

(4) Both sections must be written in separate answer books.

4 (a) Define the following : **3**

(i) Risk Transfer

(ii) Speculative Risk

(iii) Chronic exposure

(b) Explain how threshold limit value of a toxicant is determined? **4**

(c) What do you understand by occupational health risks? Discuss in detail risk identification methods. **8**

5 What is meant by LD 50 dose? Write a note on OHSAS 18000. **10**

OR

5 (a) What are the functions of occupational health department? **5**

(b) Explain how toxicants are eliminated from biological organisms. **5**

6 Discuss the importance of hygiene education and hand washing. Write a note on WHO and its functions in public health. **10**

OR

6 (a) Write a note on Filaria Eradication Programme. **5**

(b) Explain how safety, health and environment go hand in hand. **5**
